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Office Action Dated August 5, 2003

REMARKS

Reconsideration is respectfully requested in view of the above amendments and following remarks. Claim 1 is hereby amended. Claims 11-14 have been withdrawn as the result of an earlier restriction requirement. Claim 15 has been added. Claims 1-10 and 15 are pending.

Priority:

Applicants hereby do not claim priority under 35 U.S.C. 119(a)-(d) to TAIWANESE Application No. 90125665 filed October 17, 2001. Please find enclosed an Application Data Sheet indicating no claim for priority. In addition, applicants will submit a Supplemental Combined Declaration & Power of Attorney indicating no claim for priority.

Specification:

Page 5, line 2, has been amended, changing an organic fluorescent film "24" to an organic fluorescent film "26". FIG. 2 supports this amendment. Applicant submits that no new matter has been added.

Page 5, line 32, has been amended, changing "organic barrier layer 40" to "inorganic barrier layer 40". Applicant submits that no new matter has been added.

The sentences added on page 5, line 25 and page 5, line 27, clearly define that two of the inorganic barrier layers 40 can be glued to each other through the adhesion layer 36, and the

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flexible polymer film 42 serves as a main substrate of the transparent sealing structure 34. FIG. 2 supports this limitation. Applicant submits that no new matter has been added.

Drawings:

The Examiner requests drawings corrections/corrected drawings. Applicants request that the drawing corrections/corrected drawings be withdrawn in view of applicants amendment to the specification as discussed above.

Claim Objections:

Claim 1 has been amended to more clearly identify a novel and non-obvious feature of the claimed invention. In applicant's view, the specification and drawings have supported that the sealing structure is glued to the top of the substrate. In order to make examiner clearly understand the relationship, claim 1 has been amended to include the limitation "a transparent sealing structure glued to the protection layer", specifically claim 1 has been amended to include the limitation "a first transparent adhesion layer formed overlying the organic resin layers and glued to the protection layer". Support for the limitations can be found on page 5 of the specification and within FIG. 3. Applicant submits that no new matter has been added.

New claim 15, dependent from claim 1, includes the limitation "a second transparent adhesion layer formed between two of the inorganic barrier layers". Support for the limitation can be found on page 5 of the specification and within FIG. 3.

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35 U.S.C. 103(a):

Claims 1-10 are rejected under 35 U. S. C. 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Graff (US 6,573,652). Applicant respectfully traverses the rejection made by the Examiner for the reasons discussed below.

Amended claim 1 recites a top-emission organic electro-luminescent display (OLED). At least an anode layer, an organic fluorescent film, at least a cathode layer, a barrier layer and a protection layer are successively formed overlying a substrate, and a transparent sealing structure is glued to the transparent protection layer. The transparent sealing structure comprises a flexible polymer film, a hard coat formed overlying a first side of the flexible polymer film, a plurality of organic resin layers formed overlying a second side of the flexible polymer film, a plurality of inorganic barrier layers formed between the organic resin layers, and a first transparent adhesion layer formed overlying the organic resin layers and glued to the protection layer. Accordingly, the transparent sealing structure uses the flexible polymer film as a main substrate, and is glued to the transparent protection layer by the first transparent adhesion layer.

AAPR (Applicant's Admitted Prior Art) teaches a top-emission OLED with a glass plate or a UV-curing resin as a transparent faceplate 18, causing large volume, large weight, outgassing phenomenon and poor resistance to moisture. However, AAPR does not teach or suggest a transparent sealing structure consisting of a flexible polymer film, a hard coat, organic resin layers, inorganic barrier layers and transparent adhesion layers.

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Graff (US 6,573,652) teaches an encapsulated display device with a barrier stack 260. See col.4 lines 26-43. The barrier stack 260 has a barrier layer 265 and a polymer layer 270, and a lid 280 is over the barrier stack 260. See col.5 lines 50-65.

It is examiner's view that Graff's barrier layer 265 could be used as the organic resin/inorganic barrier layers recited in amended claim 1 of the application, and the polymer layer 270 could be used as the flexible polymer film recited in amended claim 1 of the application. However, Graff does not teach a transparent adhesion layer between the display device 255 and the barrier stack 260. Although the lamination could use an adhesive, glue or heat to seal the display device 255 to the substrate, Graff does not clearly suggest that an adhesion material is provided on the display device 255 or on the barrier stack 260. It is non-obvious to one ordinary skill in the art at the time the invention was made to use an indefinite adhesion process taught by Graff (US6,573,652) to complete the transparent sealing structure including a transparent adhesion layer, an organic resin layer, an inorganic barrier layer, a flexible polymer layer and a hard coat layer recited in amended claim 1 of this application.

Alternatively, it is the applicants view that the Graff's barrier stack 260 (barrier layer 265/polymer layer 270) could be used as the barrier layer/protection layer recited in amended claim 1 of the application, and the lid 280 could be used as the transparent sealing structure recited in amended claim 1 of the application. However, Graff does not teach a transparent adhesion layer between the lid 280 and the barrier stack 260. Also, Graff does not teach that the

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lid 280 comprises an organic resin layer, an inorganic barrier layer, a flexible polymer layer and a hard coat layer. It is non-obvious to one ordinary skill in the art at the time the invention was made to use Graff's lid 280 to improve AAPR.

As neither AAPR nor Graff, when taken alone or in combination, teach or suggest all the limitations of amended claim 1, it is therefore Applicant's belief that amended claim 1 is allowable over the cited references. Insofar as claims 2-10 and 15 depend from amended claim 1, respectively, it is Applicant's belief that these claims are also allowable.

With the above amendments and remarks, Applicant believes that the claims now pending in this patent application are in condition for allowance. Favorable consideration is respectfully requested. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Michael D. Schumann (Reg. No. 30,422), at (612) 336.4638.

Respectfully submitted,




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